SUMMARY

Improving The Causes Of Medication Error Incident In The Dispensing Phase With Problem Solving Cycle (A study at Pharmaceutical Installation of Menur Mental Hospital)

This study was based on the high number of medication error incident in dispensing phase at Pharmaceutical Installation of Menur Mental Hospital from 2016-2017 (average 66%). According to Health Ministry of Indonesia No. 129/Health Ministry/ SK II/2008 about Minimum Service Standard, medication error incidents should not occur at hospitals. This study aims at formulating recommendations to improve high number of medication error incidents in dispensing phase with problem solving cycle intervention at Pharmaceutical Installation of Menur Mental Hospital.

Problem Solving Cycle (PSC) was done in five phases including problem analysis, strategy design, strategy development, implementation-monitoring-evaluation, and follow up and feedback. Firstly, problem analysis identifies and analyzes the causes of medication error incidents in dispensing phase. Secondly, strategy design determines the alternative decision and prioritized solution. Thirdly, strategy development formulates the framework of solution implementation. Next, implementation, monitoring-evaluation is the fourth phase followed by follow up and feedback by evaluating the results of the solution whether they can solve the core problems or not.

Staffs that underwent dispensing phase and head of Installation at Menur Mental Hospital became the respondents as information source. This study had been conducted from December 2017 to July 2018. In problem analysis, there were 22 incidents of medication errors in dispensing phase. Then, the causes of the incidents were analyzed by using five sub-types of incidents at Pharmaceutical Installation of Menur Mental Hospital with 5 Whys.

Five sub-types of incidents include false medicine, false ethics, false patients, false doses, and lack of medicine. Six-teen problems causing the incidents were obtained. In the second phase of PSC, strategy design was conducted with Focus Group Discussion (FGD) to find the alternative decisions and prioritized solutions by using CARL. To find the core problems, FGD was done to find the alternative solution. Staffs of dispensing service at Pharmaceutical Installation of Menur Mental Hospital were involved in FGD. From FGD, it was found that there were 8 alternative solutions and 6 prioritized solutions by using CARL method.

The third phase is strategy design, formulating some plans to conduct 6 selected decisions in formulating two programs; organization structure re-arrangement of dispensing service and SOP renewal of dispensing service at Pharmaceutical Installation of Menur Mental Hospital. The fourth stage is implementation-monitoring and evaluation. In implementation phase, there were two programs implemented (organization structure arrangement of dispensing service and SOP renewal of dispensing service at Pharmaceutical Installation of Menur Mental Hospital). Each of programs consists of three activities.

Organization structure arrangement of dispensing service at Pharmaceutical Installation of Menur Mental Hospital consists of three activities (training of work unit, reviewing organization structure, and socializing organization structure as well as job description at Pharmaceutical Installation of Menur Mental Hospital). Meanwhile, SOP renewal program of dispensing service consists of reviewing SOP of dispensing service, formulating SOP of dispensing service, and socializing SOP of dispensing service.

In monitoring and evaluation phase, there were 6 activities which five of them had already been implemented and one activity, SOP formulation, has not finished. Some basic changes occurred in the dispensing service of Pharmateucial Installation of Menur Mental Hospital include examining prescription and preparing medicine by pharmacists was done according to the standard.

The fifth phase is follow up and feedback conducted to assess the result of PSC for the short-term goal. The long-term goal is the decrease of medication errors that cannot be assessed because of the limited time. There were 4 achieved goals out of 6 short-term goals, such as the improvement of Head's and coordinator's competency in the dispensing service, organization structure review and socialization as well as job description focusing on the dispensing phases and implemented SOP review of dispensing service at Pharmaceutical Installation of Menur Mental Hospital. PSC successfully found 14 core problems out of 16 problems.

From the results of this study, it is recommended to remedy the high incidents of medication errors in the dispensing service by using other methods, such as barrier analysis, change analysis and cause and effect analysis. Moreover, FGD should be supported with data, and the results of this should be examined. In addition, it is recommended that first PSC cycle should be continued by controlling the dispensing service, management of high alert medicine, and effective communication among doctors, pharmacists, and nurses. It is also recommended that second PSC cycle should be conducted to solve other problems due to the implemented program.

This study concludes that PSC was successfully conducted to decrease the incidents of medication errors in the dispensing phase. The implemented PSC should be continued by controlling the dispensing service of at Pharmaceutical Installation of Menur Mental Hospital. PSC needs continuous cycles so that the decrease of medication errors in the dispensing phase at Pharmaceutical Installation of Menur Mental Hospital could be achieved.

RINGKASAN

Upaya Perbaikan Terhadap Penyebab Tingginya Insiden *Medication Error* Tahap *Dispensing* Dengan Intervensi *Problem Solving Cycle* (Studi di Instalasi Farmasi Rumah Sakit Jiwa Menur)

Penelitian ini berdasarkan tingginya jumlah insiden kesalahan pemberian obat pada tahap *dispensing* di Instalasi Farmasi RS Jiwa Menur pada Tahun 2016-2017 (rerata 66%). Berdasarkan Permenkes RI nomor 129/Menkes/SK/II/2008 tentang Standar Pelayanan Minimal, insiden kesalahan pemberian obat tidak boleh satupun terjadi di rumah sakit. Tujuan penelitian ini adalah menurunkan insiden kesalahan pemberian obat tahap *dispensing* di IFRS Jiwa Menur dengan menggunakan PSC.

PSC dilaksanakan dalam 5 tahap yaitu analisis masalah, desain strategi, pengembangan strategi, implementasi-monitoring-evaluasi, dan *follow up and feedback.* Tahap analisis masalah melakukan identifikasi dan analisis penyebab insiden kesalahan pemberian obat tahap *dispensing*. Desain strategi melakukan penentuan alternatif dan prioritas solusi. Tahap ketiga adalah pengembangan strategi yaitu membuat rencana implementasi solusi. Tahap berikutnya adalah implementasi-monitoring-evaluasi, dan langkah terakhir adalah *follow up and feedback* dengan menilai hasil solusi apakah bisa dilaksanakan dan menyelesaikan akar masalah penyebab.

Subyek penelitian adalah Instalasi Farmasi RS Jiwa Menur. Responden sebagai sumber informasi yaitu seluruh staf yang terlibat tahap *dispensing* dan Kepala Instalasi RS Jiwa Menur, berlangsung mulai Bulan Desember 2017 – Juli 2018. Analisis masalah mendapatkan 22 insiden kesalahan pemberian obat tahap *dispensing* yang kemudian dilakukan analisis penyebab insiden berdasarkan 5 sub tipe insiden yang ada di IFRS Jiwa Menur dengan menggunakan 5 Mengapa.

5 sub tipe insiden yaitu salah obat, salah etiket, salah pasien, salah dosis, dan kurang obat. Didapatkan 16 akar penyebab insiden. Tahap kedua PSC adalah desain strategi dilakukan dengan melaksanakan FGD untuk menentukan alternatif solusi dan menentukan prioritas solusi dengan menggunakan CARL. Akar penyebab yang didapatkan, dilakukan FGD untuk menentukan alternatif solusi. FGD melibatkan staf pelayanan *dispensing* Instalasi Farmasi RS Jiwa Menur. FGD menghasilkan 8 alternatif solusi dan dilakukan prioritas dengan metode CARL menghasilkan 6 solusi terpilih.

Tahap ketiga yaitu pengembangan strategi, membuat rencana untuk melaksanakan 6 solusi terpilih dengan membuat 2 program yaitu Penataan SOTK Dalam Pelayanan *Dispensing* IFRS Jiwa Menur dan Pembaruan SPO Pelayanan *Dispensing* IFRS Jiwa Menur. Tahap keempat yaitu implementasi-monitoring-evaluasi. Tahap implementasi adalah melaksanakan 2 program yaitu Penataan SOTK Dalam Pelayanan *Dispensing* IFRS Jiwa Menur dan Pembaruan SPO

Pelayanan *Dispensing* IFRS Jiwa Menur. Masing-masing program terdiri dari 3 kegiatan.

Program Penataan SOTK Dalam Pelayanan *Dispensing* IFRS Jiwa Menur terdiri dari 3 kegiatan yaitu pelatihan proses manajemen, mengulas dan melakukan sosialisasi SOTK dan deskripsi pekerjaan IFRS Jiwa Menur fokus pelayanan *dispensing*. Sedangkan Program Pembaruan SPO Pelayanan *Dispensing* IFRS Jiwa Menur terdiri dari kegiatan mengulas, membuat SPO, dan melakukan sosialisasi SPO pelayanan *dispensing*.

Monitoring dan evaluasi didapatkan 6 kegiatan yang dilaksanakan, 5 kegiatan berhasil dilaksanakan. 1 kegiatan yaitu pembuatan SPO pelayanan *dispensing* masih belum terselesaikan semuanya. Perubahan mendasar yang terjadi pada pelayanan *dispensing* IFRS Jiwa Menur adalah terlaksananya pengkajian resep oleh apoteker dan penyiapan obat dilakukan sesuai standar Tahap kelima yaitu *follow up and* feedback, dilakukan dengan menilai hasil PSC.

Menilai hasil berdasarkan capaian tujuan jangka pendek. Tujuan jangka Panjang yaitu menurunnya *medication error* belum bisa dinilai karena keterbatasan waktu penelitian. Tercapaianya 4 dari 6 tujuan jangka pendek yaitu peningkatan kompetensi Kepala dan Koordinator Pelayanan *Dispensing* IFRS Jiwa Menur, SOTK terulas dan tersosialisasi, deskripsi pekerjaan fokus tahap *dispensing* tersosialisasi, terulas dan tersosialisasikannya SPO pelayanan *dispensing*. PSC berhasil menyelesaikan 14 akar masalah dari 16 akar masalah yang didapatkan.

Rekomendasi upaya perbaikan terhadap penyebab tingginya insiden kesalahan pemberian obat tahap *dispensing* adalah analisis insiden bisa menggunakan metode yang lain yaitu analisis penghalang atau analisis perubahan, pelaksanaan FGD harus didukung data dan hasil FGD sebaiknya dilakukan telaah. Rekomendasi pada kesalahan pemberian obat adalah melanjutkan siklus I PSC ini dengan melaksanakan pengawasan pelayanan *dispensing,* penggelolaan obat kewaspadaan tinggi dan komunikasi yang efektif antar profesi yaitu dokter-apoteker-perawat serta melaksanakan PSC siklus II untuk menyelesaikan masalah yang lain atau masalah yang timbul akibat implementasi program.

Kesimpulan penelitian ini adalah PSC berhasil dilaksanakan dalam upaya untuk menurunkan insiden kesalahan pemberian obat tahap *dispensing*. PSC yang telah dilaksanakan dalam penelitian tetap dilanjutkan, melakukan pengawasan pelayanan *dispensing* IFRS Jiwa Menur. PSC membutuhkan siklus yang berkelanjutan sehingga tujuan penurunan insiden kesalahan pemberian obat tahap *dispensing* di IFRS Jiwa Menur dapat tercapai.

ABSTRACT

Improving The Causes Of Medication Error Incident In The Dispensing Phase With Problem Solving Cycle (A study at Pharmaceutical Installation of Menur Mental Hospital)

This study was done due to the high number of medication error incidents in dispensing phase at Pharmaceutical Installation of Menur Mental Hospital from 2016 to 2017 with the aim of decreasing the medication errors by using PSC. PSC stages involve problem analysis, strategy design, strategy development, implementation-monitoring-evaluation, and follow up and feedback. Problem analysis identifies and analyse the causes of medication error incidents in the dispensing phase. Strategy design determines the alternative decisions and prioritized solution. The third phase is strategy development which formulates the framework of solution implementation. Next stage is implementation, monitoring-evaluation, and then it comes to follow up and feedback by evaluating possibly implemented solutions and solve the core problems. The results of this study show that there were four goals out of 6 short-term goals that had been implemented. They include the improvement of head's and coordinators' competence in the dispensing service at Pharmaceutical Installation of Menur Psychiatric Hospital, organization structure review and socialization, job description focusing on the dispensing phase, and SOP review of dispensing service. This study found that PSC could solve 14 core problems out of 16 problems. This study recommends that remedying the causes of medication errors in the dispensing phase include the incident analysis using other methods, such as barrier analysis or change analysis. Moreover, Focus Group Discussion should be supported with data and the results of it should be examined. Other than that, first PSC cycle should be done continuously by controlling the dispensing service, managing the high alert medicines, and communicating effectively among doctors, pharmacists, and nurses. Also, second PSC cycle should be conducted to solve other problems because of the program implementation.

Keywords: medication error in dispensing phase, problem solving cycle

ABSTRAK

UPAYA PERBAIKAN TERHADAP PENYEBAB TINGGINYA INSIDEN *MEDICATION ERROR* TAHAP *DISPENSING* DENGAN INTERVENSI *PROBLEM SOLVING CYCLE*
(Studi di Instalasi Farmasi Rumah Sakit Jiwa Menur)

Penelitian ini berdasarkan tingginya jumlah insiden kesalahan pemberian obat pada tahap *dispensing* di Instalasi Farmasi RS Jiwa Menur pada Tahun 2016-2017 dengan tujuan menurunkan insiden kesalahan pemberian obat tahap *dispensing* di IFRS Jiwa Menur dengan menggunakan PSC. Tahap PSC yang dipakai adalah analisis masalah, desain strategi, pengembangan strategi, implementasi-monitoring-evaluasi, dan *follow up and feedback.* Tahap analisis masalah melakukan identifikasi dan analisis penyebab insiden kesalahan pemberian obat tahap *dispensing*. Desain strategi melakukan penentuan alternatif dan prioritas solusi. Tahap ketiga adalah pengembangan strategi yaitu membuat rencana implementasi solusi. Tahap berikutnya adalah implementasi-monitoring-evaluasi, dan langkah terakhir adalah *follow up and feedback* dengan menilai hasil solusi apakah bisa dilaksanakan dan menyelesaikan akar masalah penyebab. Hasil yang didapatkan adalah program yang telah direncanakan bisa dilaksanakan, tercapaianya 4 dari 6 tujuan jangka pendek yaitu peningkatan kompetensi Kepala dan Koordinator Pelayanan *Dispensing* IFRS Jiwa Menur, SOTK serta deskripsi pekerjaan fokus tahap *dispensing* terulas dan tersosialisasi, dan terulasnya SPO pelayanan *dispensing*. PSC pada penelitian ini mampu menyelesaikan 14 akar masalah dari 16 akar masalah yang didapatkan. Rekomendasi upaya perbaikan terhadap penyebab tingginya insiden kesalahan pemberian obat tahap *dispensing* adalah analisis insiden bisa menggunakan metode yang lain yaitu analisis penghalang atau analisis perubahan, pelaksanaan FGD harus didukung data dan hasil FGD sebaiknya dilakukan telaah. Rekomendasi pada kesalahan pemberian obat adalah melanjutkan siklus I PSC ini dengan melaksanakan pengawasan pelayanan *dispensing* dan melaksanakan PSC siklus II untuk menyelesaikan masalah yang lain atau masalah yang timbul akibat implementasi program.

Kata kunci: *medication error* tahap *dispensing, problem solving cycle*